

**PENDING CLAIMS**

1. A method for a computer repairing itself, the method comprising the computer-executed steps of:

**booting from a first boot device;**

then, in response to a signal indicating a need for repair, booting from a second boot device; and

then repairing software on the first boot device while booted from the second boot device.

2. The method of claim 1, wherein the step of repairing software comprises:  
copying software from a device other than the first boot device onto the first  
boot device.

3. The method of claim 1, wherein the step of repairing software comprises:  
copying software from the second boot device onto the first boot device.

4. The method of claim 1, wherein the step of repairing software comprises copying template, backup and/or archive software from a device other than the first boot device onto the first boot device.

5. A method for a computer repairing itself, the method comprising the computer-executed steps of:

booting from a first boot device;

then, in response to a signal indicating a need for repair, booting from a second boot device; and

then, while booted from the second boot device, copying template, backup and/or archive software from the second boot device onto the first boot device.

30        6.        A method for a computer repairing itself to an operational status at any time  
31        during operation, the method comprising the computer-executed steps of:

booting from a first hard disk drive boot device disposed within a main computer hardware box of the computer;

1           then, in response to receiving a signal indicating a need for repair of the computer  
2        during the booting or during any operating state, booting from a second hard disk drive boot  
3        device; the second hard disk drive boot device being physically present within the main  
4        computer hardware box of the computer prior to receiving the signal indicating a need for  
5        repair; and

6           then repairing software on the first hard disk drive boot device while booted from the  
7        second hard disk drive boot device and selectively either: (i) maintaining operation of the  
8        computer from the second boot device to restore operational status of the computer during  
9        repairing of the software on the first hard disk device, or (ii) changing to operation of the  
10      computer from the second boot device to the first boot device to restore operational status of  
11      the computer.

12        7.       The method of claim 6, wherein the step of repairing software further  
13      comprises:

14           copying software from a device other than the first boot device onto the first boot  
15      device, said device other than said first boot device being either said second boot device or a  
16      third device different from said first boot device and said second boot device; and

17           said copying of software including the copying of any application, operating-system,  
18      repair-process software, template, backup, archive software, boot record, a partition table,  
19      and a basic input-output system (BIOS).

20        8.       The method of claim 6, wherein the step of booting from a second boot device  
21      comprises:

22           automatically under computer control altering identification jumpers of a data storage  
23      device to be switched to logically and physically switch the second boot device to make the  
24      second boot device bootable.

25        9.       The method of claim 6, wherein the signal indicating a need for repair is  
26      either: (i) self-generated by the computer without human intervention; or (ii) generated by  
27      the computer in response to a single action by an external user, said single action selected  
28      from the set of actions consisting of: pressing a key or combination of keys on a keyboard of  
29      the computer and pressing or changing the state of a physical switch different from an on-off

1 switch of the computer and exposed on an exterior surface of the main computer hardware  
2 box of the computer.

3       10. The method of claim 6, wherein the step of repairing software comprises:  
4 automatically repairing software on the first boot device according to preset preferences  
5 without further direction from the user, the preset preferences designating to repair the  
6 computer according to whether: to recover data, to run a virus check, to reformat the first  
7 boot device, to revert to a backup, or to run diagnostics.

8       11. The method of claim 6, wherein the step of repairing software comprises:  
9 reformatting the first boot device and then copying software onto the first boot device; or  
10 resetting parameters in a persistent memory and then copying software onto the first boot  
11 device.

12       12. The method of claim 6, wherein:

13           before booting from the second boot device, software is installed onto the second boot  
14 device; and the installing software onto the second boot device comprises one of: (a) installing  
15 software onto the second boot device; (b) copying installed software onto the  
16 second boot device; (c) copying installation software onto the second boot device; and (d)  
17 writing onto the second boot device a version of an operating environment running as a result  
18 of the boot from the first boot device; and

19           after the installing software onto the second boot device and before the booting from  
20 the second boot device, protecting the second boot device from further modification; the  
21 protecting selected from the set of protective measures consisting of (i) switching the second  
22 boot device to a state of unavailability; and (ii) switching the second boot device to a read-  
23 only state.

24       13. The method of claim 6, wherein:

25           the step of repairing software further comprises copying software from the second  
26 boot device onto the first boot device;

27           the step of copying software further comprises copying any of application, operating-  
28 system and repair-process software, and copying any of a boot record, a partition table, and a  
29 basic input-output system (BIOS);

1           the step of repairing software further comprises copying one of template, backup and  
2 archive software from a device other than the first boot device onto the first boot device;

3           the step of repairing comprises copying one of template, backup and archive software  
4 from the second boot device onto the first boot device;

5           the step of booting from a second boot device comprises switching the second boot  
6 device to make the second boot device bootable;

7           the step of switching comprises generating the signal indicating a need for repair;

8           the step of booting from a second boot device comprises one of logically switching  
9 the second boot device, and physically switching the second boot device; and the step of  
10 physically switching comprises altering identification jumpers of a data storage device to be  
11 switched, or turning on or off the power to a data storage device to be switched;

12           the signal is generated by a user altering the state of a physical switch different from  
13 an on-off switch of the computer and exposed on an exterior surface of the main computer  
14 hardware box of the computer;

15           the step of repairing software comprises automatically repairing software on the first  
16 boot device without further direction from the user according to preset preferences, the preset  
17 preferences selected from the set consisting of repairing according to whether (i) to recover  
18 data, (ii) to run a virus check, (iii) to reformat the first boot device, (iv) to revert to a backup;  
19 (v) to run diagnostics, and (vi) combinations thereof.

20           14. The method of claim 6, wherein before the step of repairing software the  
21 following step is performed: offering a user a choice of thoroughness of repair selected from  
22 the set of repairs consisting of a quick repair that re-installs or copies template software  
23 without first re-formatting, a better repair that performs a high-level re-format before that  
24 copy or re-installation of software, and a best repair that performs a low-level re-format  
25 before copying over or re-installing software.

26           15. The method of claim 8, wherein the signal indicating a need for repair is  
27 either: (i) self-generated by the computer without human intervention; or (ii) generated by  
28 the computer in response to a single action by an external user, said single action selected  
29 from the set of actions consisting of: pressing a key or combination of keys on a keyboard of

1       the computer and pressing or changing the state of a physical switch different from an on-off  
2       switch of the computer and exposed on an exterior surface of the main computer hardware  
3       box of the computer.

4           16.      The method of claim 8, wherein the step of repairing software comprises:  
5       automatically repairing software on the first boot device according to preset preferences  
6       without further direction from the user, the preset preferences designating to repair the  
7       computer according to whether: to recover data, to run a virus check, to reformat the first  
8       boot device, to revert to a backup, or to run diagnostics.

9           17.      The method of claim 8, wherein the step of repairing software comprises:  
10       reformatting the first boot device and then copying software onto the first boot device; or  
11       resetting parameters in a persistent memory and then copying software onto the first boot  
12       device.

•13           18.      The method of claim 8, wherein:

•14               before booting from the second boot device, software is installed onto the second boot  
15       device; and the installing software onto the second boot device comprises one of: (a) installing  
16       software onto the second boot device; (b) copying installed software onto the  
17       second boot device; (c) copying installation software onto the second boot device; and (d)  
18       writing onto the second boot device a version of an operating environment running as a result  
19       of the boot from the first boot device; and

20               after the installing software onto the second boot device and before the booting from  
21       the second boot device, protecting the second boot device from further modification; the  
22       protecting selected from the set of protective measures consisting of (i) switching the second  
23       boot device to a state of unavailability; and (ii) switching the second boot device to a read-  
24       only state.

25           19.      The method of claim 7, wherein before the step of repairing software the  
26       following step is performed: offering a user a choice of thoroughness of repair selected from  
27       the set of repairs consisting of a quick repair that re-installs or copies template software  
28       without first re-formatting, a better repair that performs a high-level re-format before that

- 1 copy or re-installation of software, and a best repair that performs a low-level re-format
- 2 before copying over or re-installing software.

3           20. The method of claim 13, wherein before the step of repairing software the  
4 following step is performed: offering a user a choice of thoroughness of repair selected from  
• 5 the set of repairs consisting of a quick repair that re-installs or copies template software  
6 without first re-formatting, a better repair that performs a high-level re-format before that  
7 copy or re-installation of software, and a best repair that performs a low-level re-format  
8 before copying over or re-installing software.